UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS

P O Box 1450 Alexandria, Virgima 22313-1450 www.uspto.gov

NOTICE OF ALLOWANCE AND FEE(S) DUE

24956 7590 12/22/2008

ALEXANDRIA, VA 22314

MATTINGLY, STANGER, MALUR & BRUNDIDGE, P.C. 1800 DIAGONAL ROAD SUITE 370

EXAMINER

HA, NATHAN W

ART UNIT PAPER NUMBER

2814 DATE MAILED: 12/22/2008

ſ	APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
	10/592,948	09/15/2006	Motoo Suwa	REN-5410	8673

TITLE OF INVENTION: ELECTRONIC CIRCUIT, A SEMICONDUCTOR DEVICE AND A MOUNTING SUBSTRATE

APPLN, TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	NO	\$1510	\$300	\$0	\$1810	03/23/2009

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. PROSECUTION ON THE MERITS IS CLOSED. THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHTS. THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPON PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.

THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. THIS STATUTORY PERIOD CANNOT BE EXTENDED. SEE 35 U.S.C. 1SI. THE ISSUE FEE DUE INDICATED ABOVE DOES NOT REFLECT A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE IN THIS APPLICATION. IF AN ISSUE FEE HAS PREVIOUSLY BEEN PAID IN THIS APPLICATION (AS SHOWN ABOVE), THE RETURN OF PART B OF THIS FORM WILL BE CONSIDERED A REQUEST TO REAPPLY THE PREVIOUSLY PAID ISSUE FEE TOWARD THE ISSUE FEE NOW DUE.

HOW TO REPLY TO THIS NOTICE:

I. Review the SMALL ENTITY status shown above.

If the SMALL ENTITY is shown as YES, verify your current SMALL ENTITY status:

A. If the status is the same, pay the TOTAL FEE(S) DUE shown above.

B. If the status above is to be removed, check box 5b on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and twice the amount of the ISSUE FEE shown above, or

If the SMALL ENTITY is shown as NO:

A. Pay TOTAL FEE(S) DUE shown above, or

B. If applicant claimed SMALL ENTITY status before, or is now claiming SMALL ENTITY status, check box 5a on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and 1/2 the ISSUE FEE shown above.

II. PART B - FEE(S) TRANSMITTAL, or its equivalent, must be completed and returned to the United States Patent and Trademark Office (USPTO) with your ISSUE FEE and PUBLICATION FEE (if required). If you are charging the fee(s) to your deposit account, section "4b" of Part B - Fee(s) Transmittal should be completed and an extra copy of the form should be submitted. If an equivalent of Part B is filed, a request to reapply a previously paid issue fee must be clearly made, and delays in processing may occur due to the difficulty in recognizing the paper as an equivalent of Part B.

III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Mail Stop ISSUE FEE unless advised to the contrary.

IMPORTANT REMINDER: Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.

PART B - FEE(S) TRANSMITTAL

Complete and send this form, together with applicable fee(s), to: Mail Commissioner for Patents P.O. Box 1450 Alexandria, Virginia 22313-1450

or Fax (571)-273-2885

appropriate. All further indicated unless corrects maintenance fee notifica	correspondence includir ed below or directed oth tions.	or transmitting the 18 ng the Patent, advance nerwise in Block 1, by	orders and notification (a) specifying a new	n of n	naintenance fees wi pondence address;	ill be and/or	mailed to the current (b) indicating a sepa	correspo rate "FE	ndence address as E ADDRESS" for
	ENCE ADDRESS (Note: Use Bi	iock 1 for any change of addres	ss)	Note Fee(pape have	e: A certificate of n (s) Transmittal. This ers. Each additional e its own certificate	nailing certif paper of mai	can only be used for icate cannot be used for such as an assignme ling or transmission.	r domest or any ot nt or for	ic mailings of the her accompanying nal drawing, must
1800 DIAGONA SUITE 370	, STANGER, MA AL ROAD	v2008 LUR & BRUND	DIDGE, P.C.		Certi	ificate	of Mailing or Trans 3) Transmittal is being ficient postage for first ISSUE FEE address 1) 273-2885, on the d	mission	
ALEXANDRIA	, VA 22314								(Depositor's name)
									(Signature)
				L					(Date)
APPLICATION NO.	FILING DATE		FIRST NAMED INVE	NTOR		ATTO	RNEY DOCKET NO.	CONFI	RMATION NO.
10/592,948	09/15/2006		Motoo Suwa				REN-5410		8673
TITLE OF INVENTION									
APPLN. TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE	DUE	PREV. PAID ISSUE	FEE	TOTAL FEE(S) DUE		DATE DUE
nonprovisional	NO	\$1510	\$300		\$0		\$1810		03/23/2009
EXAM	IINER	ART UNIT	CLASS-SUBCLAS	ss					
HA, NA	THAN W	2814	257-700000						
"Fee Address" ind PTO/SB/47; Rev 03-0 Number is required. 3. ASSIGNEE NAME A	ondence address (or Cha B/122) attached. ication (or "Fee Address 22 or more recent) attach ND RESIDENCE DATA	inge of Correspondence "Indication form and. Use of a Customer A TO BE PRINTED O	(1) the names of or agents OR, alto (2) the name of a registered attorne 2 registered pater listed, no name w	up to ernative single y or a at attor ill be or typ	e firm (having as a sigent) and the name meys or agents. If n printed.	attorr memb s of u so nam	er a 2o to e is 3		
PLEASE NOTE: Uni recordation as set fort (A) NAME OF ASSIGNATION O			(B) RESIDENCE: (CITY	and STATE OR CO	DUNT			
4a. The following fee(s) Issue Fee Publication Fee (N	vo small entity discount p	permitted)		sed. dit can	d. Form PTO-2038	is atta			
- 11	s SMALL ENTITY state	as. See 37 CFR 1.27.					TITY status. Sec 37 Cl		
NOTE: The Issue Fee an interest as shown by the	d Publication Fee (if req records of the United Sta	uired) will not be accep ites Patent and Tradema	oted from anyone other ark Office.	than t	he applicant; a regis	tered a	ittorney or agent; or th	e assigno	e or other party in
Authorized Signature					Date				
Typed or printed nam					Registration No				
This collection of inform an application. Confiden submitting the complete this form and/or suggesti Box 1450, Alexandria, V Alexandria, Virginia 223	nation is required by 37 C tiality is governed by 35 d application form to the ions for reducing this but (irginia 22313-1450. DC k13-1450.	CFR 1.311. The information U.S.C. 122 and 37 CFE USPTO. Time will varden, should be sent to D NOT SEND FEES OF	ation is required to obtain R 1.14. This collection ary depending upon the the Chief Information R COMPLETED FOR M	in or r is est indiv Office MS TO	etain a benefit by th imated to take 12 m idual case. Any con er, U.S. Patent and T D THIS ADDRESS.	e publ inutes nment fraden SENI	ic which is to file (and to complete, includin s on the amount of tir ark Office, U.S. Dep D TO: Commissioner	by the Ug gatherine you re urtment co	ISPTO to process) ng, preparing, and equire to complete of Commerce, P.O. ts, P.O. Box 1450,

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS

P O Box 1450 Alexandria, Virgima 22313-1450 www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.		
10/592,948 09/15/2006		Motoo Suwa	REN-5410	8673		
24956 7590 12/22/2008			EXAMINER			
MATTINGLY, S	TANGER, MALUR	HA, NATHAN W				
1800 DIAGONAL ROAD SUITE 370 ALEXANDRIA, VA 22314		ART UNIT PAPER NUMBE				
			2814 DATE MAILED: 12/22/200	18		

Determination of Patent Term Adjustment under 35 U.S.C. 154 (b)

(application filed on or after May 29, 2000)

The Patent Term Adjustment to date is 196 day(s). If the issue fee is paid on the date that is three months after the mailing date of this notice and the patent issues on the Tuesday before the date that is 28 weeks (six and a half months) after the mailing date of this notice, the Patent Term Adjustment will be 196 day(s).

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date that determines Patent Term Adjustment is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) WEB site (http://pair.uspto.gov).

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571)-272-7702. Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at 1-(888)-786-0101 or (571)-272-4200.

Notice of Allowability

Application No.	Applicant(s)
10/592,948	SUWA ET AL.
Examiner	Art Unit
Nothon W. Ho	2014

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address-All claims being allowable, PROSECUTION ON THE MERTIS IS (OR REMAINS) CLOSED in this application. If not included
herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. THIS
NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS. This application is subject to withdrawal from issue at the initiative
of the Office or upon petition by the applicant. See 37 CFR 133 and MPEP 1308.

- 1. This communication is responsive to 9/10/08.
- The allowed claim(s) is/are 1-5 and 29-36.
- 3. Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 - 1. T Certified copies of the priority documents have been received.
 - 2. Certified copies of the priority documents have been received in Application No. _____
 - Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).
 - * Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

- A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
- 5. CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) hereto or 2) to Paper No./Mail Date
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.

Identifying Indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).

 DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- 1. Notice of References Cited (PTO-892)
- 2.
 Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3. Information Disclosure Statements (PTO/SB/08),
- Paper No./Mail Date 9/06
- Examiner's Comment Regarding Requirement for Deposit of Biological Material
- 5. Notice of Informal Patent Application
- Interview Summary (PTO-413), Paper No./Mail Date .
- 7. X Examiner's Amendment/Comment
- 8. X Examiner's Statement of Reasons for Allowance
- 9. Other _____.

Application/Control Number: 10/592,948 Page 2

Art Unit: 2814

EXAMINER'S AMENDMENT

Election/Restrictions

 This application is in condition for allowance except for the presence of claims 6-28 directed to invention non-elected without traverse. Accordingly, claims 6-28 have been cancelled.

2. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

The application has been amended as follows:

In the specification:

Replace the phrase "Description" with "Title of the Invention", on page 1, line one.

Replace the phrase "Disclose of the Invention" with "Summary of the Invention", on page 2, below the first paragraph.

Replace the current "ABSTRACT" with a new abstract in the next page.

In the claim:

Cancel claims 6-28

Claims 1-5 and 29-36 are allowed.

3. The following is an examiner's statement of reasons for allowance:

The primary reason for the indication of the allowability of the above claims is the inclusion therein, in combination as currently claimed as a whole, of the limitation of the electronic circuit including assembly lines of the second semiconductor device have

Application/Control Number: 10/592,948

Art Unit: 2814

made lengths thereof unequal for respective bits, and the unequal lengths of the mounting substrate lines have a relationship which offsets the unequal lengths of the assembly lines. This limitation is found in the above claims and is neither disclosed nor taught by the prior art of record, alone or in combination.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nathan W. Ha whose telephone number is (571) 272-1707. The examiner can normally be reached on M-TH 8:00-7:00(EST).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wael Fahmy can be reached on (571) 272-1705. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Application/Control Number: 10/592,948 Page 4

Art Unit: 2814

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Nathan W. Ha/ Primary Examiner, Art Unit 2814 Application/Control Number: 10/592,948 Page 5

Art Unit: 2814

ABSTRACT

An electronic circuit includes a first semiconductor device and a second semiconductor device on a mounting substrate. The mounting substrate lines have lengths which are made unequal for respective bits. Assembling lines which reach connecting electrodes of a semiconductor chip from the external terminals of the second semiconductor device have made lengths thereof unequal for respective bits. The unequal lengths of the mounting substrate lines have a relationship which offsets the unequal lengths of the assembling lines.